

# Breaking yam tuber dormancy with appropriate chemical treatment

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## Abstract

Yam (*Dioscorea alata* L.) is an important food crop and industrial raw material but its production is highly seasonal mainly due to tuber dormancy. In the Philippines, the crop is grown only once a year (May to December) and 20-40% of tuber yield is used as planting materials as 100-250 g tuber setts for the next cropping after a 2-4 month dormancy period. The planting material requirement is a great loss of tubers from the supply chain and contributes to the limited and seasonal supply of tubers for domestic and export markets. This study determined the effects of two chemical formulations, CF1 and CF2 (propriety products), on breaking dormancy of 10 g tuber setts (minislices) of purple yam var. 'VU2', which were designed to minimize tuber requirement as propagules. Based on a series of experiments in four seasons, CF2 was consistently shown to be very effective in breaking tuber dormancy and a 1 ppm concentration was sufficient. The minislices can be treated right after harvest and can be field planted the following month, yielding an average of more than one kg tubers per plant after 6 months from field planting comparable to that from conventional propagules (150 g tuber setts) and much higher than that produced from tissue culture-derived plantlets as planting materials.